

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-27 are pending. Claims 1-27 stand rejected.

Rejections Under 35 U.S.C. § 101

Claims 10-18 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner states

“Machine-readable medium” is considered non-statutory subject matter. The Examiner suggests to that the Applicant that the limitation be changed to read “Computer-readable medium”.

(p. 2, Office Action 11/15/04)

Applicants respectfully submit that the limitation “machine-readable medium” is not considered non-statutory. Applicants have found numerous patents issued by the United States Patent and Trademark Office that have claims including the term machine-readable medium as used in the present claims 10 – 18. The most recent of these, U.S. Patent No. 6,854,116, was issued last Tuesday (2/8/05). The Examiner is requested to provide the basis for asserting that the limitation “machine-readable medium” is considered non-statutory.

Rejections Under 35 U.S.C. 102(b)

Claims 1-27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Christeson et al. U.S. Patent No. 5,579,522 (“Christeson”). The Examiner stated that

Referring to claim 1, Christeson teaches a method of dynamically updating BIOS firmware parts that includes both normal BIOS and recovery BIOS, this is interpreted as adding initiation module to a BIOS firmware of a computing system having an extensible firmware architecture, the BIOS firmware having a plurality of initiation modules with initiation modules required for the recovery of the computing system designated as recovery initiation modules and other initiation modules designated as non-recovery modules (see Col. 1, Lines 25-45 and Col. 2, Lines 15-57). Christeson also teaches the verification of the flash memory area, this is interpreted as automatically evaluating the initiation modules (See Col. 3, lines 26-35). Finally Christeson discloses updating the recovery BIOS, this is interpreted as designating the initiation module if it is determined

that the initiation is required for recover of the computing system (See Col. 2, lines 52-57).

(p. 3, Office Action 11/15/04) Christeson discloses that

Prior art computer systems are typically bootstrapped (i.e. power up initialized) using the processing logic (i.e. firmware) stored within the read only memory device internal to the computer system. Since the read only memory device is non-volatile, the firmware within ROM is guaranteed to contain valid data or instructions; thus, the prior art computer system can be reliably bootstrapped using firmware within ROM. Many computer systems have successfully used this technique. One such system is the IBM Personal Computer (PC) developed by the IBM Corporation of Armonk, New York. Prior art versions of the IBM PC use read only memory devices for storage of firmware or a basic input/output system (BIOS) software program. The BIOS is operating system processing logic that provides the lowest level of software control over the hardware and resources of the computer system. ROM storage may also be used for non-volatile retention of network configuration data or application specific data. ROM devices in the prior art include basic read only memory devices (ROM), programmable read only memory devices (PROM), and eraseable programmable read only memory devices (EPROM)

(Christeson, Col. 1 Lines 25-45) Christeson also discloses that

The present invention is a computer system wherein a portion of code/data stored in a non-volatile memory device can be dynamically modified or updated without removing any covers or parts from the computer system. The computer system of the preferred embodiment comprises a bus for communicating information, a processor coupled with the bus for processing information, a random access memory device coupled with the bus for storing information and instructions for the processor, an input device such as an alpha numeric input device or a cursor control device coupled to the bus for communicating information and command selections to the processor, a display device coupled to the bus for displaying information to a computer user, and a data storage device such as a magnetic disk and disk drive coupled with the bus for storing information and instructions. In addition, the computer system of the preferred embodiment includes a flash memory component coupled to the bus for storing non-volatile code and data. Devices other than flash memory may be used for storing non-volatile code and data. Using the present invention, the contents of the flash memory may be replaced, modified, updated, or reprogrammed without the need for removing and/or replacing any computer system hardware components.

The flash memory device used in the preferred embodiment contains four separately erasable/programmable non-symmetrical blocks of memory. One of these four blocks may be electronically locked to prevent erasure or modification of its contents once it is installed. This configuration allows the processing logic of the computer system to update or modify any selected block of memory without affecting the contents of other blocks. One memory block contains a normal BIOS. The BIOS comprises processing logic instructions that are executed by the processor. An additional BIOS region can be used to extend the system BIOS memory area. An electronically protected (i.e. locked)

flash memory area is used for storage of a recovery BIOS which is used for recovery operations. Each of these separately programmable regions of the flash memory may be modified or updated using the dynamic update mechanism of the present invention.

(Christeson, Col. 2 Lines 15-57) Christeson also discloses that

Recovery update mode is used when a user cannot boot the system because the normal system BIOS has been corrupted either following a power failure during a normal BIOS update or for some other reason.

(Christeson, Col. 3 Lines 1-4) Christeson also discloses that

Once the recovery mode is set using the jumper, the processor of the computer system may then be power-up initialized or reset. Upon power up or reset, the processor jumps to a location within the protected recovery BIOS block. In this manner, the flash device memory map may be reconfigured in a recovery mode by activating recovery mode processing logic residing in recovery BIOS block. Thus, using the mode selection means, either a normal system BIOS or a recovery BIOS may be activated.

When executing out of normal BIOS, the dynamic update program displays a menu of options for user selection. These options include: verification of a flash memory area, saving a selected flash memory area, updating a flash memory area, and exit. Using these command options, the flash memory areas that may be updated might include the normal system BIOS area, a user reserved area, a local area network (LAN) BIOS area, a SCSI BIOS area, a video data area, other hardware or software specific BIOS or data areas, or any other application specific processing logic in an area of flash memory.

(Christeson, Col. 3 Lines 16-35)

Applicants respectfully submit that claim 1 is not anticipated by Christeson under 35

U.S.C. 102§(b). Claim 1 includes the following limitations:

A method comprising:

adding an initiation module to a BIOS firmware of a computing system having an extensible firmware architecture, the BIOS firmware having a plurality of initiation modules with initiation modules required for the recovery of the computing system designated as recovery initiation modules and other initiation modules designated as non-recovery modules;

automatically evaluating the initiation module; and

designating the initiation module as a recovery initiation module if it is determined that the initiation module is required for recovery of the computing system.

(Claim 1) (emphasis added)

Applicants respectfully submit that Christeson does not include the limitation of automatically evaluating the initiation module and designating the initiation module as a recovery initiation module if it is determined that the initiation module is required for recovery

of the computing system. The recovery initiation modules are separate from the non-recovery modules. This limitation allows for the dynamic designation of initiation modules as recovery based upon an evaluation.

Christeson, in contrast, does not provide such capability. Christeson does not teach or suggest that initiation modules can be dynamically designated recovery upon an evaluation.

For this reason, applicants respectfully submit that claim 1 is not anticipated nor rendered obvious by Christeson. Given that claims 2 – 9, depend, directly or indirectly, from claim 1, applicants respectfully submit that claims 2 – 9 are, likewise, not anticipated nor rendered obvious by Christeson.

Given that claims 10 and 19 include the limitations of automatically evaluating the initiation module and designating the initiation module as a recovery initiation module if it is determined that the initiation module is required for recovery of the computing system, and that claims 11 – 18 and claims 20 -27, depend, directly or indirectly, from claims 10 and 19, respectively, applicants respectfully submit that claims 10 – 27 are, likewise, not anticipated nor rendered obvious by Christeson.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.


Respectfully submitted,

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Date:

2/11/05

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